



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,591	08/01/2001	Ian Bendell	076776-0115	2579
22428	7590	03/16/2004	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			CIRIC, LJILJANA V	
			ART UNIT	PAPER NUMBER
			3753	15

DATE MAILED: 03/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

Applicant(s)

Examiner

Ljiljana V. Ciric *LC*

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Oct 23, 2003
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6, and 8-20 is/are pending in the application.
- 4a) Of the above, claim(s) 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 8, 9, 11, and 13-20 is/are rejected.
- 7) ☒ Claim(s) 10 and 12 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Sep 24, 2002 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on Oct 23, 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. This Office action is in response to the amendments and arguments filed on October 23, 2003.
2. Claims 1 through 4, 6, and 8 through 20 remain in the application, with claims 19 and 20 being new and the remaining claims all being amended, either directly or indirectly.
3. The amendment filed on October 23, 2003, however, is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: there is no support in the originally filed disclosure for any of a bonding fastener, a frictional fastener, or an interlocking fastener as now newly recited in new claims 19 and 20. The originally filed disclosure only refers very generally to "fastening means" in passing on page 9, paragraph [0022].

Applicant is required to cancel the new matter in the reply to this Office Action.

Response to Arguments

4. Applicant's arguments filed on October 23, 2003 with respect to the claims as rejected in the previous Office action have been considered but are moot in view of the new ground(s) of rejection.

Applicant is, however, respectfully reminded that claims in a pending application should be given their broadest reasonable interpretation. See *In re Pearson*, 181 USPQ 641 (CCPA 1974).

Election/Restriction

5. Upon reconsideration in view of the file wrapper prosecution history, claim 4 is hereby withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to the non-elected third species or the embodiment of Figure 3 (see paragraph [0025] and lines 4-5 of paragraph [0027] of

Art Unit: 3743

the originally filed specification) there being no allowable generic or linking claim. Election was made without traverse in Paper No. 8.

Drawings

6. The replacement drawing for Figure 7 was received on October 23, 2003. The changes in the replacement drawing (i.e., Figure 7) are hereby approved, and the replacement drawing is acceptable except for informalities as noted on the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

7. Nevertheless, upon reconsideration, the drawings filed on September 24, 2002 and on October 23, 2003 are now objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or the features canceled from the claims: the fastener as newly recited in all of the claims; a plurality of positive temperature coefficient elements integrated in the first heat exchanger as recited in claim 14; the fastener being a bonding fastener, a frictional fastener, or an interlocking fastener as newly recited in claims 19 and 20. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

8. Receipt and entry of the amended abstract is acknowledged.

9. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

Art Unit: 3743

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

10. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

11. The amended abstract of the disclosure is objected to because it is not concise and because it does not avoid using phrases which can be implied (i.e., "Disclosed is" and "The present disclosure relates, generally, to"). Also, a word or words appear to be missing immediately following "rear temperature-control unit which" in line 3 of the abstract. Correction is required. See MPEP § 608.01(b).

12. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: there is no antecedent basis in the originally filed specification for either a fastener as now recited in all of the claims nor for the specific fasteners as now newly recited in claims 19 and 20. The lack of antecedent basis for the latter is not correctable without the filing of a CIP application since the originally filed disclosure only refers very generally to "fastening means" in passing on page 9, paragraph [0022].

Claim Objections

Art Unit: 3743

13. Claims 1 through 3, 6, and 8 through 20 are objected to because of the following informalities: “and” should be inserted immediately preceding “operably integrated therein” [claim 1, line 16; claim 17, line 15; and, claim 18, line 13] for improved readability. Appropriate correction is required.

14. Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form. Claim 3 merely repeats the limitations previously cited in lines 13-14 of claim 1 from which claim 3 depends.

15. Claims 10 and 12 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form. Each of dependent claims 10 and 12 depends from a cancelled claim, and thus fails to limit the subject matter of a previous claim.

Claim Rejections – 35 USC 112

16. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

17. Claims 19 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed disclosure merely refers very generally to “fastening means” on page 9, in paragraph [0022]. Nowhere does the original disclosure even mention the specific types of fasteners now recited in claims 19 and 20. Thus, the specific types of fasteners now recited as being part of the instant invention constitute new matter.

Art Unit: 3743

18. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

19. Claims 1 through 3, 6, 8, 9, 11, and 13 through 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The multiple alternative limitations appearing in subparagraphs (i), (ii), and (f) in each of base claims 1 and 17 and the same limitations appearing in subparagraphs (i), (ii), and (d) in base claim 18 render these claims and all claims depending therefrom indefinite with regard to the scope of protection sought. As written, it is not clear, for example, whether the claimed invention of claims 1 through 3, 6, 8, 9, 11, and 13 through 20 constitutes a heating and air-conditioning system for a motor vehicle necessarily including only ONE of the releasable cover and the rear temperature control unit or whether the invention constitutes a heating and air-conditioning system for a motor vehicle which necessarily includes BOTH the releasable cover and the rear temperature control unit, with only one of these being connected to the connecting section at any given time. If the former, then recommend replacing the alternative language in the claims with proper and corresponding Markush-type limitations. If the latter, then recommend paraphrasing the claims appropriately to reflect the same more clearly. Also, if the former, then furthermore there is no antecedent basis for at least one of the limitations "said releasable cover" and "said rear temperature control unit" as cited in subparagraph (f) in each of claims 1 and 17 and as cited in subparagraph (d) in claim 18.

Also with regard to each of the base claims, it is not clear which structural configurations are encompassed by the limitation "a fastener" as recited in the claims, particularly since the originally filed disclosure fails to either describe or depict even a single equivalent therefor.

Art Unit: 3743

Claim 8 appears to contain a double recitation of the second heat exchanger already recited in lines 16 of claim 1 from which claim 8 depends, thus further rendering claim 8 indefinite with regard to the scope of protection sought.

Claim 9 as written appears to be directed to an undisclosed embodiment and not to the disclosed invention. Base claim 1 from which claim 9 depends recites the leak-proof cover which characterizes the species or the embodiment of Figure 2, but this species or embodiment in turn is NOT characterized by the right-left temperature control made possible by a heat exchanger partitioned into a left and a right portion. See paragraph [0024] of the originally filed specification. Claim 9 is thus rendered indefinite.

It is not clear what is meant by the limitations following “wherein” in claim 11 as written. For example, it is not clear which dimension of the wall is “substantially larger” than an unidentified dimension of the air outlet opening, thus further rendering claim 11 indefinite.

Claim 13 is generally incomprehensible as written. First of all, it is not clear to which previously recited element (if any) the limitation “said attaching means” in line 2 of this claim refers, since there appears to be no antecedent basis in the claims for this limitation. Second of all, it is not clear what is meant by, nor which structural configuration(s) are encompassed by, the limitations “flange members corresponding to each other and capable of fitting together on” as recited in lines 2-3 of the claim. Claim 16 also contains the limitation “said attaching means” without there being proper antecedent basis for the same in the claims.

It is not clear which structural equivalents correspond to the positive temperature coefficient elements as recited in claim 14.

The alternative language in claims 19 and 20 is not clear as written and should be rewritten in Markush form.

The above is an indicative, but not necessarily an exhaustive, list of 35 U.S.C. 112, second paragraph, problems. Applicant is therefore advised to carefully review all of the claims for additional

Art Unit: 3743

problems. Correction is required of all of the 35 U.S.C. 112, second paragraph problems, whether or not these were particularly pointed out above.

Claim Rejections – 35 USC 102

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

21. As best can be understood in view of the indefiniteness of the claims, claims 1 through 3, 6, 8, 11, 13, and 15 through 18 are rejected under 35 U.S.C. 102 (e) as being anticipated by *Tsurushima et al.*

Tsurushima et al. discloses a vehicular HVAC system essentially as claimed, including: a first heat exchanger 4 operably integrated within a conditioning housing 2 within case 60; a plurality of air outlet openings 6a, 7a, and 8a in the housing 2; a connecting section or attachment surface or flange arrangement or attaching means on the “outside” of the housing 2 corresponding to at least surfaces G1 and G2; an air outlet opening 34 through said connecting section; and, a “rear” temperature control unit attached to the conditioning housing 2 via the connecting section or attachment surface as described above, the “rear” temperature control unit 1 including an additional housing 1 having a second heat exchanger 3 and an air control element or mix door assembly 10 operably integrated therein. Note that the relative terms “rear” and “outside” as recited in the claims are not defined with respect to a specific point of reference and thus do not help to patentably define over the prior art.

Alternately, at least with regard to claims 1, 2, 11, 17, and 18, *Tsurushima et al.* could be viewed as disclosing a vehicular HVAC system including: a first heat exchanger 3 or 4 within a conditioning housing 60; a plurality of air outlet openings 6a, 7a, and 8a in the housing 60; a connecting section or

Art Unit: 3743

attachment surface on the outside of conditioning housing 60 corresponding to case opening 40 and including a mating releasable cover 41 as shown in Figure 8; and, a fastener corresponding to projection 41a.

The reference thus reads on the claims.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

24. As best can be understood in view of the indefiniteness of the claims, claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Tsurushima et al.*

Tsurushima et al. discloses a vehicular heating and air conditioning system essentially as claimed, as disclosed in greater detail above. Nevertheless, while *Tsurushima et al.* does disclose a fastener at 41a corresponding to the releasable cover 40 as shown in Figure 8 [column 6, lines 52-66], the particular types of fasteners as cited in claims 19 and 20 are not specifically disclosed by the reference. Nevertheless, Official Notice is hereby taken that it is known in the art to use any type of known

Art Unit: 3743

releasable fastener, including the ones recited in claims 19 and 20, for releasably connecting a cover to a housing which has a fastener connection.

Thus, it would have been obvious to one skilled in the art at the time of invention to modify *Tsurushima et al.* by specifically using any one of the fasteners cited in each of claims 19 and 20 in order to releasably connect cover 41 to housing 60.

25. As best can be understood in view of the indefiniteness of the claims, claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Tsurushima et al.* in view of *Umebayahi et al.* (previously of record).

Tsurushima et al. discloses a vehicular heating and air conditioning system essentially as claimed, as disclosed in greater detail above. Nevertheless, while *Tsurushima et al.* does disclose a first heat exchanger or heater 4, it does not specifically disclose the heater 4 as including a plurality of electrically activated positive temperature coefficient elements as recited in claim 14. Nevertheless, it is very well known in the art, and taught by *Umebayahi et al.* (previously of record) to include electrically activated positive temperature coefficient or heating elements 51 in vehicular HVAC heaters in order to supplement engine heat in vehicles having a diesel engine or electrical or hybrid vehicles. See column 2, lines 33-41 of *Umebayahi et al.*

Thus, it would have been obvious to one skilled in the art at the time of invention to modify *Tsurushima et al.* by adding a plurality of electrically activated positive temperature coefficient elements or heating elements to the vehicular HVAC heater as taught by *Umebayahi et al.* in order to supplement engine heat in at least diesel-, electrical-, or hybrid-powered vehicles as needed to enable sufficient heating of the vehicle's interior compartment using the vehicular HVAC system.

26. The non-application of art against claim 9 should not be construed as an indication that the claim contains allowable subject matter but rather that the patentability of the claim cannot be determined at this time due to indefiniteness and/or other problems under 35 U.S.C. 112, first

Art Unit: 3743

and second paragraphs.

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Sasaki et al.*, *Takasaki*, *Kurokawa et al.*, *Shibata*, and *Sato et al.* all disclose modular vehicular air conditioning systems.

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric, whose telephone number is (703) 308-3925. While she works a flexible schedule that varies from day to day and from week to week, Examiner Ciric may generally be reached at the Office during the work week between the hours of 10 a.m. and 6 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel, can be reached on (703) 308-1272.

The NEW central official fax phone number is (703) 872-9306.

Application/Control Number: 09/919,591


Page 12

Art Unit: 3743

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

LVC/ts

January 11, 2004


LJILJANA V. CIRIC
PRIMARY EXAMINER
ART UNIT 3753